

Abstract

Systems, methods, and devices relating to the provision of deliberate predistortion to an input signal to compensate for distortions introduced by an amplifier subsystem. An input signal is received by a predistortion subsystem which applies deliberate predistortions to the input signal to arrive at a predistorted signal. The predistorted signal is received by an amplifier subsystem which decomposes the signal, processes the decomposed signal, and then recombines the components to arrive at a system output signal. The predistortion subsystem adaptively adjusts the predistortions based on characteristics of the system output signal. A feedback signal, a replica of the system output signal, is used in updating lookup table entries used to determine the predistortion.